

NEW DESCRIPTIONS

Back of tail with 20-25 broad white cross-bars, median part of each bar spotted with black; V.209-229, C.40-50

B. candidus (Linn.). (Thailand, Malay Pen. and Indonesia)

E₂ Belly with black marks or cross-bars, sometimes absent in juvenile.

1. Back with 15-21 white cross-bars, 2-5 tail bands. V.219-236, C.32-42.

B. ceylonicus Gunther. (Sri Lanka only)

2. Back with 11-14 very broad, white, black-

spotted cross-bars; V.214-235, C.40-48.

. *B. magnimaculatus* Wall and Evans. (Burma only)

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STUDIES ON INDIAN FILISTATID SPIDERS (ARANEAE: ARACHNIDA)¹

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(With two text-figures)

INTRODUCTION

Since the classical work of Pocock (1900) and the earlier contributions of other European arachnologists on Indian spiders, no reference has been made about the occurrence of filistatid forms from India. The earliest record was by Thorell (1895) from Burma with a description of a new species *Filistata zebrata*. Simon (1911) described *F. nigra* from Madura, India; now confirmed by Benoit (1968) as *Sahastata nigra*. Recently Tikader (1963, 1977) described two and Patel (1975) described one species of the genus *Filistata* Latr. from India. Recently (May, 1977) I studied the type spe-

cimens of *F. poonaensis* and *F. nicobarensis* from the Zoological Survey of India, Poona and found that both species belong to the genus *Pritha*. The conclusion of Lehtinen (1967) that *F. poonaensis* Tikader, is a species of *Pritha* is thus confirmed.

Filistatidae is a family of Cribellate spiders, living in dark places, particularly in crevices of houses, wood and also under stones. Only one genus, *Filistata* was known which was considered to have world wide distribution. Mello-Leitao (1946) described some more Neotropical genera and summarized the characters of the known genera. Recently Lehtinen (1967) clearly separated four more genera *Andoharano*, *Kukulcania*, *Zaitunia* and *Pritha*, and redefined the genus *Filistata*, limited in distribution to areas south of the Palaearctic region. According to Benoit (1968) the first three

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genera described by Lehtinen are monophyletic.

During the course of my studies on spiders from Gujarat State, I came across some interesting forms of this family belonging to the genera *Sahastata* Benoit and *Pritha* Lehtinen. The first genus is being recorded here for the first time after its establishment by Benoit and the later also for the first time from India. The previous records of *Pritha* are from Algeria, Lybia and Tunisia. Two new species of these genera are described here. A Key to the Indian filistatid genera as well as the characters of the newly recorded genera are given.

The type specimens will in due course be deposited in the National Collections of Zoological Survey of India, Calcutta.

KEY TO INDIAN FILISTATID GENERA

1. —Calamistrum of curved hairs in a single row. Cephalothorax with a central marking and black margin. Femora III and IV with basodorsal spines, tarsi III and IV with spines in a single row. *Filistata*
- Calamistrum in two rows (biserrate) 2
2. —Cribellum subtriangular. Cephalothorax slightly marked with black designs, cymbium horse-shoe shaped. Tibia of maxillary palp much swollen, femur and tarsi without spines. Abdomen with white hairy patches. *Pritha*
- Cribellum subtriangular, narrow and elongated lengthwise. Cephalothorax marked anteriorly with black network like markings. Cymbium short and cylindrical. Tibia of maxillary palp is not swollen. 3
3. —Outer row of calamistrum is of short hairs and inner row has long curved hairs. Scopulae on inner side of femora I and II, and numerous spines on femur II;

tibia, metatarsus and tarsi with numerous spines. *Sahastata*

FILISTATA Latreille 1810

Filistata Latreille, 1810. Consi. gen. Crus. Arach. Ins., : 120.

Filistata napadensis Patel, 1975. *Oriental insects*, 9(4) : 425.

Specimens examined: Gujarat: Napad, Dist. Kheda, 20 ♀, 2 ♂, 18.x.1967; Vallabh Vidyanagar and Chaklashi, Dist. Kheda, 3 ♀, 20.xi.1969; Ahwa, Dist. Dangs, 2 ♀, 16.viii.1970; Ambaji, Dist. Banaskantha, 2 ♀, 21. xi.1970. Coll. B. H. Patel.

Distribution: Kheda, Ahwa and Banaskantha Districts, Gujarat.

PRITHA Lehtinen 1967

Pritha Lehtinen, 1967. *Ann. Zool. Fennici*, 4 : 260, 300.

Characters: Cephalothorax with light coloured designed and well defined clusters of white hairs. Tarsal claws without spines, some times a small ventral spine on the metatarsus I present. Thoracic fovea absent. Cribellum triangular and divided. Calamistrum biserrate. Male: cymbium horse-shoe shaped. Tibia of palp strongly bulged, the ejaculatory duct very broad and 'U' shaped with embulous end sharp and slightly arched. The palp of the female is more swollen than in other genera. Male cephalothorax is bordered.

Type species: *Pritha nana* (Simon 1868).

This common genus is heterogenous in its composition and was divided into three groups of species by Lehtinen (1967). Palaearctic (*nana*) group comprises of *P. nana* Simon, *P. vestata* Simon, *P. debilis* Simon, *P. pallida* Kulcz. and *P. albimaculata* O. P. Cambr. to which *P. condita* O. P. Cambr. from Atlantic Islands is added. The other groups are the Indo-Malayasian (*garciai*) group and the

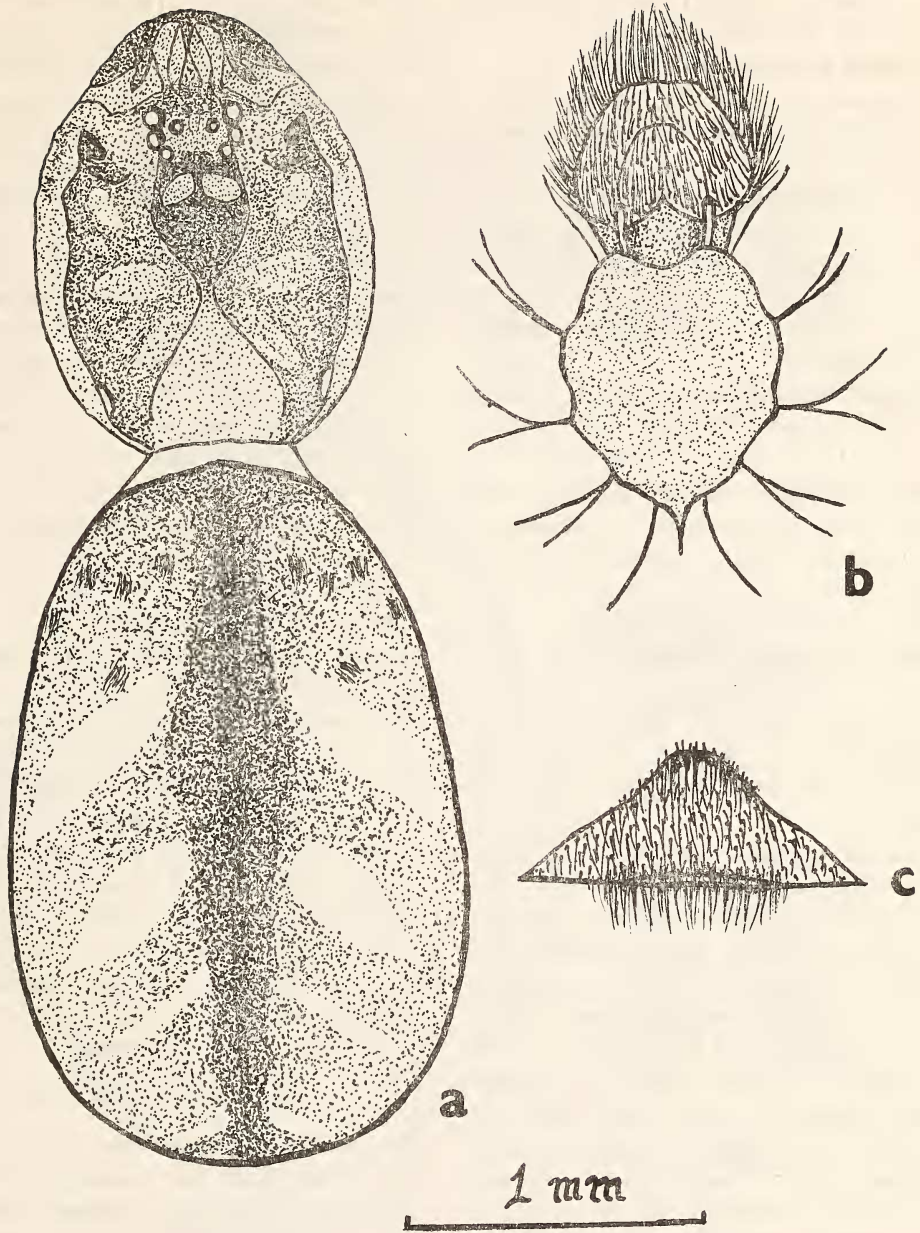


Fig. 1. *Pritha dharmakumarsinhjii* sp. nov.
a. Dorsal view of female (legs omitted); b. Sternum, labium and maxillae; c. Epigyne.

Formosan (*bakeri*) group of which the first one is closer to the Palaearctic one.

Pritha poonaensis (Tikader)

Filistata poonaensis (Tikader), 1963. *J. Univ. Poona Sci. Tech.* 24:35. *Specimens examined*: Gujarat: Napad, Dist. Kheda, 2 ♀, 3.ix.1967; Chaklashi, Dist. Kheda, 2 ♀, 22.vi.1970. Coll. B. H. Patel. Also type specimens from the collections of Z. S. I., Poona, collected by Dr. B. K. Tikader.

Distribution: Poona, Maharashtra; Kheda District, Gujarat.

Pritha nicobarensis (Tikader)

Filistata nicobarensis (Tikader), 1977. *Rec. Zool. Surv. India*, 72 (1-4):160.

Specimens examined: Female holotype and paratypes from the collections of Zoological Survey of India, Poona, collected by Dr. B. K. Tikader.

Distribution: India: Nicobar Islands.

Pritha dharmakumarsinhji sp. nov.

(Fig. 1, a-c)

Female: Light brown to brown in colour. Total length 3.83 mm. Carapace 1.46 mm long, 1.13 mm wide; abdomen 2.37 mm long, 1.46 mm wide.

Cephalothorax: Dark brown with light coloured white patches, covered with fine hairs and yellow coloured margin. Peculiar oval and round patches on the clypeus and the region just posterior to the eye group as in Fig. 1, a. Clypeus very low and arched. Eyes in a compact group and raised up. AM dark in colour, rest pearly white. AL largest of all, PM smallest, PL smaller than AL, AM slightly smaller than PM, AL and PL contiguous. Ocular quad broader posteriorly and narrowed in front. Anterior row of eyes procurved, posterior row slightly procurved. Sternum dark brown due to the presence of black spots; oval pointed behind and concave ridge in front. Sternum and labium fused together

without any distinct demarkation. Sternum, labium and maxilla as in Fig. 1, b. Two white stripes are present from the anterior edge of sternum joining with the labium on its lateral margin. Legs long, the first being the longest, yellowish with dorsal sides brighter in colour, covered with numerous hairs, no spines. Tarsi with two pectinate claws. Legs 1 4 2 3.

Abdomen: Oblong, brownish, with light yellow symmetrically arranged patches on the dorsal side and a median dark coloured line as in Fig. 1, a. Few scattered tufts of white hairs are present on the anterior half of abdomen. Ventral side lighter in colour with a wide median dark band extending from the epigastric fold upto the spinners. Abdomen projects a little behind the spinners. Epigyne most simple in the form of a transverse slit as in Fig. 1, c.

Holotype: 1 ♀, paratype: 4 ♀, in spirit.

Type-locality: Bhavnagar, Dist. Bhavnagar, 23.viii.1973. Coll. B. H. Patel.

Distribution: Bhavnagar and also collected from Hathab, Dist. Bhavnagar, Gujarat.

This species resembles to *Pritha nana* Lehntinen, but differs as follows: (1) Shape of sternum differs with the posterior pointed end and black spots. (2) Two white stripes on the lateral sides of labium joining the sternum and labium are present, but in *P. nana* no such stripes are found. (3) Colour pattern on the cephalothorax and abdomen also differ. (4) Epigyne also differs structurally.

SAHASTATA Benoit 1968

Sahastata Benoit, 1968. *Estr. Dag. Ann. Del. Mus. Civ. Stor. Nat. Genova*, 77:96.

Characters: Eyes in a compact group, raised on the turbercle like protrubance, ocular region marked with raised hairs. Ocular quad wider behind. Clypeus more strongly arched. A deep fovea present. The area between the

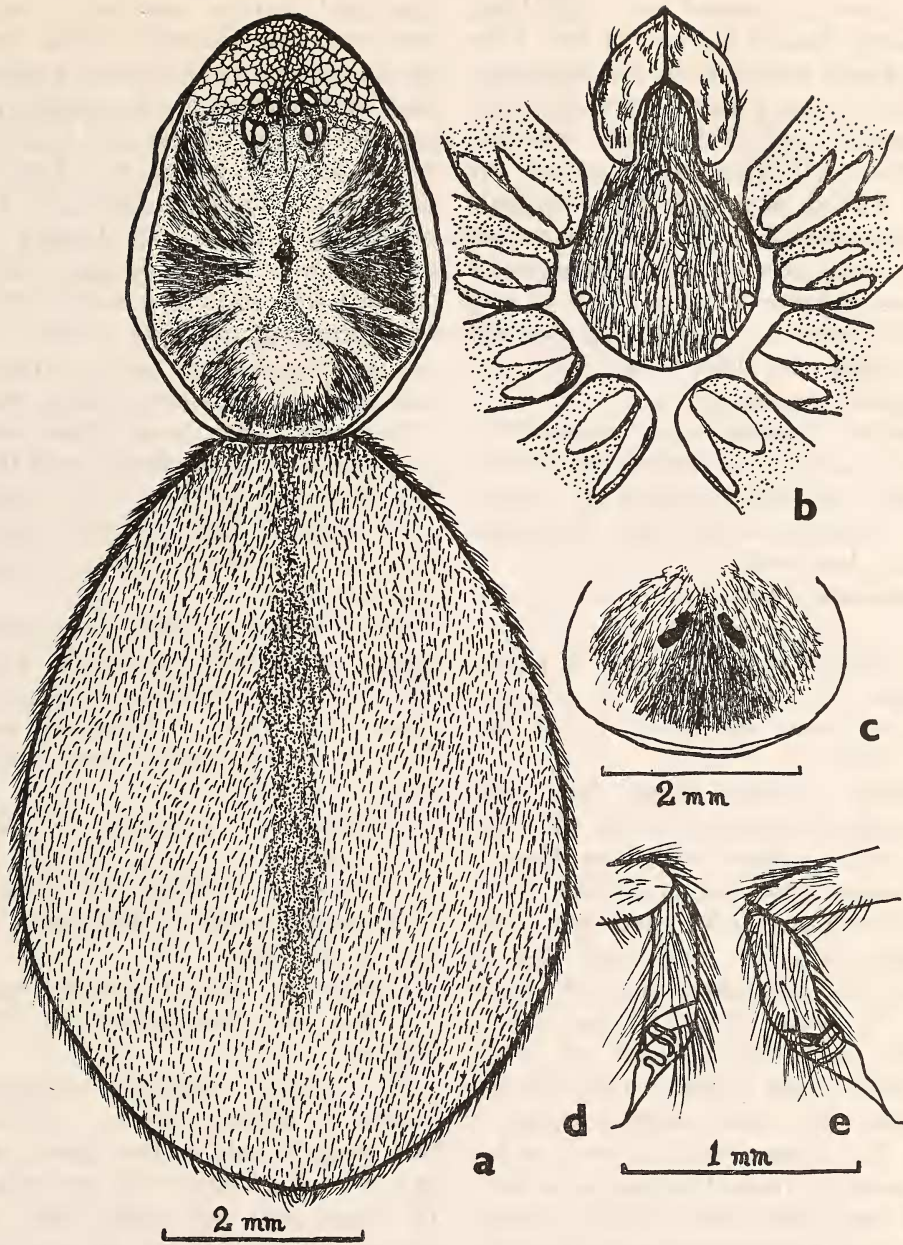


Fig. 2. *Sahastata ashapuriae* sp. nov.

- a. Dorsal view of female (legs omitted); b. Sternum, labium and maxillae; c. Epigyne;
 d. Left male palp—inner view; e. Left male palp—outer view.

eyes and fovea is covered with stiff black hairs, pointing towards the median line. Tibia and tarsi of palp with a number of small ventral spines. Femora I and II provided with thick scopulae, thick hairs and numerous spines on femora II. Tibia, metatarsus and tarsus with a number of ventral spines. Pectinate tarsal claws present. Labium more longer than wide with lateral concave edges. Calamistrum of two rows of hairs, the inner row is of long curved hairs, towards the outer side over the outer row which is of short straight hairs. Cribellum divided transversely.

Type species: Sahastata nigra (Simon 1911)

This genus occupies an intermediate position between the old world genera of *Filistata* Latr. and *Zaitunia* Leht. and *Kukulcania* Leht. of the new world.

***Sahastata ashapuriae* sp. nov.**

(Fig. 2, a-e)

Female: Brown to black brown in colour. Total length 11.73 mm. Carapace 4.21 mm long, 3.15 mm wide; abdomen 7.52 mm long, 5.47 mm wide.

Cephalothorax: Oval, longer than wide, widest through the region of fovea, with light coloured margin, clothed with hairs. Eyes in a small compact group on an elevated tubercle like protrubance. AM more than twice smaller than AL, AM round and dark in colour, rest oval and pearly white, PL larger than PM, AL largest of all. Anterior row of eyes slightly procurved, posterior row nearly straight. Ocular quad narrower anteriorly and wider behind. The black marbled design is limited to the clypeus which is more or less flat and round in front. Carapace is covered with thick long black hairs pointing towards the median line. Postero-lateral sides of ocular tubercle show depression. Distinctly deep and wide fovea present, at the posterior end of which there is a depression as in Fig. 2, a. Ster-

num oval, narrow anteriorly, covered with hairs and four yellowish circular patches on the margin of posterior half. Labium longer than wide, pointed at the anterior end. Sternum, labium and maxilla as in Fig. 2, d. Coxae of all the legs having two light yellowish coloured patches as in Fig. 2, b. Legs long, covered with thick hairs. Femora I and II provided with thick scopulae. Tarsal claws provided with 10-12 long teeth. Legs 1 4 2 3. Calamistrum of two rows of hairs, the inner row is of long curved hairs, the outer row of straight hairs. Cribellum divided transversely.

Abdomen: Oval, longer than wide, wider in the posterior half, covered with thick hairs. The dorsal side provided with a median elongated patch of light yellowish colour, as in Fig. 2, a. Ventral side lighter in colour. Epigyne as in Fig. 2, c.

Male: Similar in colour and characters but smaller in size than the female. Total length 5.89 mm. Legs comparatively longer than the female. Legs 1 4 2 3. Male palp longer than the first leg and palpal organ simple as in Fig. 2, d and e.

Holotype: 1 ♀, paratype: 5 ♀, allotype: 1 ♂, in spirit.

Type-locality: Hathab, Dist. Bhavnagar, c. 25 kilometres south of Bhavnagar, 1.ix.1973. Coll. B. H. Patel.

Distribution: Known from the type-locality and also from Bhavnagar, Dist. Bhavnagar, Gujarat.

This species resembles *Sahastata nigra* Benoit, but differs as follows: (1) Black marbled design is only on the clypeus region, but in *S. nigra* it entirely covers the cephalothorax. (2) Black, long and dense hairs cover the median line on the slope of ocular bulb, but in *S. nigra* this region is covered by the black design. (3) Structure of epigyne and male palpal organ also differ.

NEW DESCRIPTIONS

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